Sultanate of Oman

Webinar:
Lessons Learnt during Exercise IOWave 2025

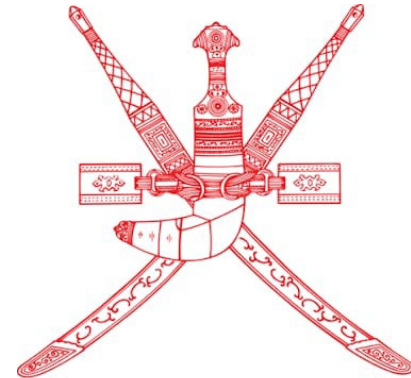## 16 - 17 December 2025

Hilal Al-Hajri
Multi-Hazard Early Warning Center
Hilal.Alhajri@caa.gov.om

Scenarios Exercised

☐ Sunda Trench (25 Sept)

☑ Makran Trench (15 Oct)

☐ Fani Maore Volcano (25 Oct)

☐ Sumatra Trench (05 Nov)

Exercise Participants

Functional exercise:

❑ *National Multi-Hazard Early Warning Center*

❑ *National Center For Emergency Management*

❑ *Royal Oman Police*

❑ *Civil Defense and Ambulance Authority*

❑ *Ministry of Information*

National Tsunami Warning & Mitigation System

Oman's system consists of:

- *26 seismic stations, 6 wave radars, 10 tide gauges , 10 GPS stations.*

These sensors provide continuous data to NTWC using SeisComP and TOAST systems. The system supports near-field and regional tsunami detection, modeling, and threat evaluation.

Organizations & Stakeholders in National Tsunami Warning Chain:

- *TSP :" For Far-Field Tsunami"*

- *NMHEWC: Warming & Advices*

- *NCEM : Warming & Advices , Official call for evacuations for far-field*

- *Royal Oman Police (Regional & local stations): Official call for evacuations for Near-Field.*

- *CDAA*

- *Ministry of Information: Warming & Advices*

Initiatives help prepare at-risk communities
- *Tsunami Ready Recognition: Ongoing.*
- *National Awareness Campaigns: School's Evacuation.*

National Organisation of Exercise IOWave25

How was it planned?
➤ Selection of the functional exercise format.
➤ Identification of participating national authorities.
➤ Preparation of the national operating timeline based on approved SOPs.
➤ Configuration of communication channels (SMS and email).
➤ Technical readiness of the Early Warning System.

Was the exercise used to evaluate Tsunami Ready or similar indicators in your country?
• Speed of warning dissemination
• Inter-agency coordination
• Effectiveness of SOP implementation.

Summary of what happened during the exercise
The IOWave25 in Oman on 15 October 2025 simulated a magnitude 9.0 Makran earthquake and a tsunami arriving within 15 minutes. Agencies operated from their normal offices, receiving and acknowledging warning bulletins issued through email and SMS. The exercise tested system performance, message delivery, and inter-agency coordination. No evacuation was conducted.

Lessons Learnt

What worked well?
 1. Analysis and tsunami bulletins dissemination within the time.
2. Effective use of multiple communication channels.
3. Good operator readiness and SOP compliance.
4. Timely interaction with service providers (TSPs).

And what are the areas of improvement?
➢ Reduce the time delay to be within time.
➢ Confirmation of messages receipt by stakeholders.

How can more at-risk communities be involved in future exercises?
• Extends exercises to include schools, coastal residents,fishermen..etc.
• Introduce public alert testing in real conditions.
• Implementation of full scale exercise.

Images

Detecting, Analyzing and Dissemination Bulletins using Seisomop and TOAST systems

Hot Debrief with stakeholders after IOWave25 event

Press release

THANK YOU